WHAT IS CLAIMED IS:

1. A moving-film display device comprising:

a moving-film having a fixed end and a movable end;

a stationary body having a counter face that is shaped more distant from the moving-film as a position of the counter face shifts from the fixed end side to the movable end side;

a colored portion disposed at the movable end of the moving-film;

an auxiliary electrode disposed on the moving-film between the fixed end and the movable end,

a scanning electrode disposed on the counter face to face the auxiliary electrode on the fixed end side;

a holding electrode disposed on the counter face to face the auxiliary electrode on the movable end side;

a signal line electrically connected to the holding electrode to supply an image signal; and

a drive section configured to control voltages to be supplied to the auxiliary electrode, the scanning electrode, and the holding electrode.

2. The device according to claim 1, wherein the auxiliary electrode is electrically connected to an auxiliary scanning line, the scanning electrode is electrically connected to a scanning line, the auxiliary scanning line and the scanning line are

disposed in parallel with each other, and the auxiliary scanning line and the scanning line intersect the signal line.

3. The device according to claim 1, wherein a first potential difference is formed between the scanning electrode and the auxiliary electrode to cause the moving-film to deflect, and a second potential difference is formed, after the first potential difference disappears, between the auxiliary electrode and the holding electrode to cause the moving-film to maintain a deflecting state.

4. The device according to claim 1, wherein a formula of $0.4 \leq Lmid/L \leq 0.8$ is satisfied, where L and Lmid are respective lengths of first and second portions projected on the moving-film in a non-deflecting state, wherein the first portion extends from an original point that is a substantially proximal end of the scanning electrode on the fixed end side, to a substantially distal end of the holding electrode on the movable end side, and the second portion extends from the original point to a substantial boundary between the scanning electrode and the holding electrode.

5. The device according to claim 1, wherein the counter face of the stationary body has a flat surface disposed on the movable end side and a curved surface following the flat surface.

6. The device according to claim 1, wherein the moving-film comprises a plurality of films corresponding to a plurality of colors, and the colored portion comprises a plurality of transparent portions with different colors disposed at movable ends of the plurality of films.

7. The device according to claim 1, wherein holding electrodes of a plurality of pixels that share a common signal line are formed along with the common signal line from a continuous metal film.

8. A driving method of the device according to claim 1, comprising:

a writing first period in which a first potential difference is formed between the auxiliary electrode and the scanning electrode to cause the moving-film to deflect;

a writing second period in which the first potential difference is removed between the auxiliary electrode and the scanning electrode, while the holding electrode is supplied with a potential by the image signal, that determines the moving-film to maintain a deflecting state or not; and

a retention period in which a state is maintained where the first potential difference is not formed between the auxiliary electrode and the scanning electrode, and a potential difference formed between the auxiliary electrode and the holding electrode falls

in a range that holds a state given in the writing second period.

9. A driving method of the device according to claim 2, wherein

the device has a scanning line first potential and a scanning line second potential higher than the scanning line first potential as potentials of the scanning line, an auxiliary scanning line first potential and an auxiliary scanning line second potential higher than the auxiliary scanning line first potential as potentials of the scanning line, and a signal line first potential and a signal line second potential higher than the signal line first potential as potentials of signal scanning line, and

the method comprises:

a writing first period in which the scanning line is supplied with the scanning line second potential, the auxiliary scanning line is supplied with the auxiliary scanning line first potential, and the signal line is supplied with the signal line second potential, to cause the moving-film to deflect toward the stationary body;

a writing second period in which the scanning line is supplied with the scanning line second potential, the auxiliary scanning line is supplied with the auxiliary scanning line second potential, and the signal line is supplied with the signal line first

potential to cause the moving-film to maintain a deflecting state toward the stationary body, or the signal line is supplied with the signal line second potential to cause the moving-film to separate from the stationary body, in accordance with image information; and

a retention period in which the scanning line is supplied with the scanning line first potential, and the auxiliary scanning line is supplied with the auxiliary scanning line first potential to maintain a state given in the writing second period.

10. The method according to claim 9, wherein the scanning line second potential, the auxiliary scanning line second potential, and the signal line second potential are equal to each other.

11. A moving-film display device having a display area formed of a pixel matrix, which is defined by rows and columns of pixels, the device comprising:

a cantilever disposed in each pixel and having a fixed end and a free end to be movable by deflection, such that displayed color of each pixel is determined by an exposed state of the free end relative to the display area in accordance with deflection of the cantilever;

a first electrode disposed on the cantilever between the fixed end and the free end;

a second electrode disposed stationary to face the

first electrode on the fixed end side;

a third electrode disposed stationary to face the first electrode on the free end side, distance between the first and third electrodes being larger than distance between the first and second electrodes;

a plurality of first scanning lines extending in the pixel matrix and each being configured to supply the first electrode with a first scanning signal for selecting each pixel;

a plurality of second scanning lines extending in the pixel matrix and each being configured to supply the second electrode with a second scanning signal for selecting each pixel;

a plurality of signal lines extending in the pixel matrix and each being configured to supply the third electrode with an image signal for determining displayed color of each pixel; and

a drive and control section configured to selectively supply the first and second scanning lines and the signal lines with the first and second scanning signals and the image signal, respectively.

12. The device according to claim 11, wherein the signal lines extend along one of the rows and the columns of the pixel matrix, and the first and second scanning lines extend in parallel with each other and across the signal lines.

13. The device according to claim 11, further

comprising a stationary body disposed to face the cantilever and having a counter face shaped substantially along a deflect curve of the cantilever, wherein the second and third electrodes are disposed on the counter face of the stationary body.

14. The device according to claim 13, wherein the second and third electrodes are formed by cutting a common conductive film disposed on the counter face to satisfy a formula of $0.4 \leq Lmid/L \leq 0.8$, where L essentially denotes a total projected effective length of the second and third electrodes projected on the cantilever in a non-deflecting state, and Lmid essentially denotes a projected effective length of the second electrode projected on the cantilever in the non-deflecting state.

15. The device according to claim 13, wherein the counter face comprises a curved portion disposed on the fixed end side and provided with the second electrode, and a linear portion disposed on the free end side and provided with the third electrode.

16. The device according to claim 11, wherein the cantilever disposed in each pixel comprises a plurality of films corresponding to a plurality of colors, and a plurality of transparent portions with different colors are disposed at free ends of the plurality of films.

17. The device according to claim 11, wherein third electrodes of a plurality of pixels that share a

common signal line are formed along with the common signal line from a continuous conductive film.

18. The device according to claim 11, wherein the drive and control section performs:

a writing first period for each pixel in which a first potential difference is formed between the first and second electrodes by the first and second scanning signals to cause the cantilever to deflect;

a writing second period for each pixel in which the first potential difference is removed between the first and second electrode by the first and second scanning signals, while the third electrode is supplied with a potential by the image signal, that determines the cantilever to maintain a deflecting state or not; and

a retention period for each pixel in which a state is maintained where the first potential difference is not formed between the first and second electrodes, and a potential difference formed between the first and third electrodes falls in a range that holds a state given in the writing second period.

19. The device according to claim 18, wherein, in the writing second period, the image signal forms a second potential difference, smaller than the first potential difference, between the first and third electrodes to maintain a deflecting state of the cantilever, or forms a third potential difference,

smaller than the second potential difference, between the first and third electrodes not to maintain a deflecting state of the cantilever.

20. The device according to claim 19, wherein both of the first and second scanning signals maintain a first value potential in the retention period; one of the first and second scanning signals takes on the first value potential in the writing first period and a second value potential in the writing second period; the other of the first and second scanning signals takes on the second value potential in the writing first and second periods; and the image signal takes on a third value potential between the first and second value potentials to maintain a deflecting state of the cantilever, or takes on a value that is closer to the second value potential than the third value potential is, so as not to maintain a deflecting state of the cantilever, in the writing second period.